















The Wyoming Immunization Program Newsletter www.immunizewyoming.com

First of all, let me say "Thank You!" to all of our WyVIP providers and "Happy New Year!"

Since I assumed my position as Section Chief in September 2007, I have had the privilege of meeting with private and public providers and learning the intricacies of our program. One of the first things I did when I joined the Wyoming Immunization Program was to evaluate where the program was and where we needed to go. I thought I would share a few of my goals for 2008 with all of you, since you are an important part of these goals.

Goal #1: Improve immunization rates among Wyoming citizens

Goal #2: Provide exceptional customer service to ensure providers are equipped to

immunize Wyoming citizens

Goal #3: Protect the quality of all federally- and state-provided vaccines

For this message, I'd like to focus on Goal #3. At the end of 2007, we saw a great deal of "vaccines gone bad" – some due to human errors (such as failure to follow "cold chain"), some due to systems errors (such as emergency plans not in place or posted in an accessible location), and some due to other uncontrollable factors (such as outages related to adverse weather conditions).

In order to ensure that we maintain a low vaccine wastage rate, we'd like to ask for your assistance. Ask yourself these questions:

Are all refrigerators and freezers being monitored consistently and continuously to ensure optimal functioning?

WHY? Viable vaccines mean fewer revaccinations.

Are you using current forms to provide documentation on temperature readings, doses administered, and inventory?

WHY? Specific information is required by the Wyoming Immunization Program in order for providers to receive free vaccine.

Are all staff aware of and trained in "cold chain" procedures, not just key vaccine personnel? WHY? People take vacations, go on medical leave, and other unforeseen circumstances occur, which could impact the safety and viability of vaccine.

Are emergency plans clearly posted and understandable?

WHY? In the event an emergency occurs, the process for protecting the vaccine should be rapidly implemented.

Just as we expect high quality from WyVIP providers regarding vaccine storage and handling, please know that you can also expect high quality from us. If we aren't performing at an exceptional level, please contact me so I can address and correct any situation within our control. (Please note that any issues regarding vaccine shipments will be logged and addressed with McKesson, the distribution agent for CDC.)

During 2008, working together, my hope is that we will see significantly less wasted vaccine, better compliance with WyVIP policies and procedures, and higher immunization rates. Please accept our sincere appreciation for all you do to ensure that the people of Wyoming are protected against vaccine-preventable diseases. We look forward to another year working hand-in-hand with you to improve immunization rates for all Wyomingites! Have a happy and HEALTHY new year!



Wyoming Department of Health

JAB & GAB

Volume 4, Issue 2 February, 2008

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*Don't forget to check your email for communication from us! Vaccine Vaccine Vaccine Education Education



World of the Vaccine Office-By Randy DeBerry

Updates on the Ordering System

Hello everybody. Beginning on February 1, 2008 the WyVIP Program will be more effectively ensuring we have a "replenishment only" ordering strategy. This strategy is being implemented to (1) bring our state into compliance with the protocols per the Centers for Disease Control and (2) to help reduce vaccine waste due to unnecessarily high vaccine inventories.

When we receive your paperwork, we will first look at your doses administered for each vaccine for the previous month, and will convert that number into a replenishment order. This will usually be done by rounding the number UP to the closest number of doses for which we can place an order. If, for example:

*You administered 12 doses of DTaP in the last month, since we can only order DTaP in 10 dose packs your replenishment order for DTaP would be 20 doses.

*We will then compare the potential replenishment order with your current vaccine inventory for that particular antigen. If your current inventory is at least **three times** your doses administered, then we will <u>not</u> place you a replenishment order for that antigen. If your current inventory is less than three times your doses administered, even by one dose, then we will place a replenishment order for that antigen.

*If your potential replenishment order was 20 doses, and you current inventory for DTaP was 60 doses or more, then we would not place an order for you for DTaP. However, if you're current DTaP inventory was 59 doses or less, then we would place a DTaP replenishment order.

We understand their might be instances where you will need more than a replenishment order, such as if you are running a mass immunization clinic or for back to school season. As such, if you know that you will need more than a replenishment order for any antigen, you will need to submit a Special Clinic Order Form for those additional doses. A Special Clinic Order Form should be submitted by the 2nd business day of the month, the same deadline as when your monthly paperwork is due into our office. An updated Special Clinic Order Form has been developed to aid you in this process. The updated form was created to reflect all vaccines offered by the program, instead of the few that were listed on the previous form. To find this form follow these steps:

Go to www.immunizewyoming.com

Left click on "Vaccine Program" in the main menu on the left

Once the WyVIP Page appears, left click on "WyVIP Forms and Packets"

Once the new page appears, look for the form entitled "Special Clinic Order Form" dated 2.01.08

If after an analysis of your current inventory and doses administered for each vaccine the WyVIP staff determines that you require no order for any vaccine, a fax will be sent to your office informing you of your "No Order" status for the month. Once you receive this fax if you would like further information or would like to discuss your order status please feel free to contact the WyVIP Program Manager.

We understand that as WyVIP Providers you have had to undergo many changes during the last year, many of which have not been handled as well, and want you to know that we will help you any way we can during this time of transition. Again, this is not a change that we made lightly, but was designed to bring us within the CDC guidelines that are becoming mandatory. As always, if you have any questions, comments, or concerns about these processes please contact the WyVIP Program Manager.

Expired Vaccine

This is just a friendly reminder that if you have vaccine in your inventory that is coming close to its expiration date, please contact the WyVIP Program HHREE
MONTHS before the vaccine is set to expire. Given the size and population of our state it often takes several months to find a provider/providers who will be able to use the vaccine prior to expiration. Thank You.



School House Rocks! Upcoming Events & Trainings by Andrea Clement-Johnson

February 20, 2008- 12:15-1:30, WIP Monthly Teleconference, Call-in information 1-877-278-8686, Participant ID 687555.

"Current Issues in Immunization," Immunization NetConferences are live, 1-hour presentations combining an **online visual presentation** with **simultaneous audio** via telephone conference call and a live **question and answer** session. Topics and times will be announced on the CDC website (www.cdc.gov); the next one is tentatively scheduled for:

March 13, 2008

<u>International Conference on Emerging Infectious Diseases (ICEID)</u> Date: March 16-19, 2008 Location: Atlanta, Georgia Website: www.iceid.org Contact: iceid@asmusa.org or 204-942-9330

42nd National Immunization Conference Date: March 17–20, 2008 Location: Hilton Atlanta in Atlanta, Georgia Website: www.cdc.gov/vaccines/events/nic/ Contact information: Call (404) 639-8225, or email NIPNIC@cdc.gov

*2008 Epidemiology and Prevention of Vaccine-Preventable Diseases Series is no longer being delivered via satellite. It will be available in late spring 2008 as a DVD and on the Internet.

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Education Education Clinical Clinical

Tool Kits and Enrollment in WyVIP for 2008-by Andrea Clement-Johnson



The tool kits for 2008 are coming! You should expect to see them coming to your offices during the month of February. This year, we are trying out a new, hopefully more user-friendly, less space consuming format, that will house all your WIP items in one large binder. Of note, as we continue to wait for CDC's final approval on the Fraud and Abuse Policy, the one we will be sending you will be in draft format. We will advise when final

approval is complete and let you know of any changes that may impact you in any way. Also, one last reminder, as part of our federal requirements, the 2008 Enrollment forms must be returned to our offices with original signatures. Faxed or electronic copies cannot be accepted. Enrollment forms were due to the office by January 16th, 2008. These forms were sent out in the December newsletter, but you may also access them on the website at www.immunizewyoming.com. Please return them as quickly as possible to ensure there is no interruption in your vaccine replenishment. Of note for our registry users only; if you need assistance in taking out the number of patients per age category who are listed as "insured" in your registry data, you may use the Provider Estimate Form on the home page of our website (www.immunizewyoming.com) to remove those children from your VFC estimate. This tool will formulate the estimates based on the statewide registry data at the mere entry of patient data. Instructions are located on the form on the website. Any and all providers may also call Andrea at (307) 777-8981 if you have any additional questions or needs. THANKS very much for your cooperation.

Welcome to Grace Neeley, New Education Addition

I received my Bachelor of Science degree in Health Education from Southern Illinois University Edwardsville in May of 2006. After graduation, I taught 7th and 8th grade Health at Sagewood Middle School in Parker, Colorado for one year. This past summer, my husband Branden and I were married in my hometown of O'Fallon, Illinois and honeymooned in the Dominican Republic. After relocating to Cheyenne, I worked at Cheyenne Regional Medical Center in the Education and Workforce Development department. While at CRMC, I taught a portion of the Preceptor course for hospital employees and trained to teach First Aid and CPR for healthcare providers. As I start a new chapter of my career here with the Wyoming Immunization Program as an Outreach Specialist and Education Consultant for the Cheyenne office, I look forward to using my background in education and developing new expertise and relationships within the Health Education field.

(CCDC, AAP, and AAFP released the 2008 Recommended Immunization Schedule for Person Age 0 -18 years. Copy is included as an insert.

Changes to the previous schedule are as follows:

Recommendations for use of the *live attenuated influenza vaccine* (LAIV) now include health children aged as young as 2 years of age. LAIV should not be administered to children aged <5 years with recurrent wheezing. Children aged <9 years who are receiving influenza vaccine for the first time or who were vaccinated for the first time last season, but only received 1 dose, should have 2 doses of vaccine, at least 4 weeks apart.

For meningococcal vaccines, changes affect certain children aged 2 – 10 years. Vaccinating with meningococcal conjugate vaccine (MCV4) is preferred to meningococcal polysaccharide vaccine (MPSV4) for children at increased risk for meningococcal disease, including children who are traveling to or residents or countries in which the disease is hyperendemic or epidemic, children who have terminal complement component deficiencies, and children who have anatomic of functional asplenia. The catch-up schedule for youth aged 13 – 18 years has been updated. MPSV4 is an acceptable alternative for short-term (i.e., 3 – 5 years) protection against meningococcal disease for persons ages 2 – 18 years.

The tetanus and diphtheria toxoids/tetanus and diphtheria toxoids and acellular pertussis vaccine (*Td/Tdap*) catch-up schedule for persons aged 7 – 18 years who received their first dose before age 12 months now indicates that these youth should receive 4 doses, with at least 4 weeks (not 8 weeks) between doses 2 and 3.

The catch-up bars for hepatitis B and Haemophilus influenza type b conjugate vaccine have been deleted on the routine schedule for persons aged 0 -6 years. The figure title refers users to the catch-up schedule when patients fall behind or start late with vaccinations.

The National Childhood Vaccine Injury Act requires that healthcare providers provide parents or patients with copies of Vaccine Information Statements (VIS) before administering each dose of the vaccines listed in the schedule.

Cold Chain issues:

Reminder: if vaccine is taken away from the storage refrigerator/freeze and not being maintained in that unit, then a temperature check needs to
occur as the vaccine enters the second unit and hourly thereafter. This unit needs monitored with a certified thermometer. (CONT. ON BACK)

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Clinical Clinical WylR WylR

Clinical Corner (Cont.)

Our current temperature logs can be modified with hours in place of the date. The date of the clinic should appear in the month entry at the top. These temperature logs need to be sent in each month with the monthly reports.

Hospitals storing the bulk of their Hep B vaccines in the pharmacy and then dispense small amounts to the nursery as needed, need to be filing two monthly temperature logs. I am now responsible for all quality assurance on all cold chain issues. If you have any questions, problems with maintaining a safe, constant temperature, I need to be notified. I am also reviewing questionable temperature logs as they are filed and will be calling to ask questions if there is a concern.

"If your experiences would benefit anybody, give them to someone." Florence Nightingale

I received a report of cold chain being out of range with an unknown cause. It was over a weekend with a rather significant snow storm. Power outages were not known to have occurred. The staff returned to work on Monday and noted the temperature was 12°C. Immediately the unit began to cool and returned to a safe range. And educated "guess" would be the unit experienced an electrical spike. (Add this to the news media reports of two fires (in different parts of the state) during storms that resulted in buildings, vehicles, hay and a helicopter loss, I expanded my research further). In talking with an electrician, he told me that many of our new appliances have electronic components that do not handle electrical spikes. When this occurs the unit shuts down for a period of time. We talked about a strip protector. He indicated this could potentially trip and then it will shut the refrigerator off until manually reset or it will not be strong enough for this size of appliance. This will not work for vaccines. There are "hard wired units" that are designed to prevent the electrical spikes from entering the building. This has "done the trick" in his experiences. I'm sharing this information for you to determine if this is something your practice should consider. Our dollar losses and allocation losses this past month have been noted by Jan on the cover of this issue.



Get WylR'd!

What will the Wyoming Immunization Registry (WyIR) do for my practice?

In utilizing the WyIR, you will: reduce your paperwork and save staff time; consolidate immunizations from all participating providers into one record; provide easy access and reliable immunization histories for any child (new or current patients), even if immunizations were received at a different clinic; provide information on immunizations, due or overdue; provide patient reminders and recalls for immunizations, due or overdue; provide your patients' immunizations directly on an official school immunization record form, so that parents can enroll their children in school; reduce the number of phone calls you make to schools and day care centers during registration;

facilitate introduction of new vaccines or changes in the vaccine schedule; help you manage vaccine inventories; help you determine what proportion of children in your practice have been adequately immunized; help with HEDIS data collection for managed-care organizations; and reinforce the concept of the medical home.

The WylR simplifies immunization record keeping, provides quicker access to immunization records, and helps you keep track of a patient's immunization status. If a parent calls you for their child's immunization history, you can provide them with this information with a couple of mouse clicks.

Can the WylR exchange data with Electronic Medical Records (EMR)?

The WylR has the capacity to electronically exchange data with the clinical systems including electronic medical records. The capacity and direction of this exchange depends on the technical capacity of the Electronic Medical Record system and the WylR. Many state and local IIS use the industry standard Health Level 7 (HL7) protocol to exchange this type of patient's immunization information, as does WylR.

What type of equipment do I need to electronically link with the WyIR?

Exchanging immunization information with the WyIR can be done in a variety of different ways. The WyIR typically requires some form of internet access which may involve a dial up access or high speed access. The computer application used in the practice should have the ability to create an interface file that conforms to a standard exchange format. Depending on the type of clinical application and the clinical workflow, WyIR information may be accessible directly from within the clinical application. Additional software requirements may be necessary for authentication, encryption and sending the file to the WyIR. "Interfaces" between WyIR and clinical applications may be a solution to reduce the burden of multiple data entry. Contact the Wyoming Immunization Program with any additional questions.

Version Upgrade -

The latest version upgrade now appears to be stabilized and functioning as it should. However, as many experienced users are familiar with, as soon as a new version comes out, inherently there are system bugs that were not present when undergoing quality assurance

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WylR WylR WylR WylR WylR

testing. Rather than reproducing the issues in a lengthy format in this media, you can point your browser to the following link to view the outstanding system bugs:

http://www.health.wyo.gov/Media.aspx?mediaId=3229

Most of the bugs that have been identified are unfortunately related to the Mass Immunization Module. That being said, the bugs mainly affect the Public Health Nursing Offices that use this particular module. However, there are a couple of more bugs that may affect your utilization of the WylR. We encourage you to check our webpage at http://www.immunizewyoming.com to keep up to date on further developing issues.

Changes pending in New Year

Last month, we briefly mentioned that we will begin a "slow" rollout of changes to the WylR in order to comply with the 12 functional standards for Immunization Registries as defined by the CDC. This month, we are starting that process.

The first standard that I would like to touch upon is the **establishment of a timely birth record**. Previously, the WyIR had an interface with Vital Records and we were receiving records in a timely fashion. Sometime in March 2006, the link with Vital Records was lost. This was due to the data collection being moved from in-house to being outsourced. Apparently, there were some problems with the software that the state had purchased through the outsourcing, and Vital Records made the decision to once again bring the tracking of Vital Statistics in house again. Within the Immunization Section, as you are aware of, we were without a permanent Section Chief for sometime. This resulted in many projects being placed on hold until we could have dedicated leadership within the Immunization Program. With our new Section Chief, Jan Bloom, on board, we were finally able to coordinate with the Vital Statistics Program the profile needed for the WyIR to begin uploading once again. We are proud to announce that **we have uploaded over 13,000 birth records**, essentially filling in the gap where the records stopped to the present.

So, what will this mean to you? Previously, when a newborn patient presented to your office for their two-month series of immunizations, most providers have had to enter demographic data manually for the patient if they were born after March, 2006. That should no longer be the case. Due to monthly uploads, when a newborn presents to a provider's office for the initial vaccination series, they should already be in the system. This linkage will make it quicker for providers to give vaccinations, as the patient should already be in the system. With this functional standard tackled, the WyIR staff has moved on to meeting other functional standards.

Confidentiality & Security essentially has been maintained for the WyIR by having providers enroll with the WyIR, and then having users sign a confidentiality agreement which asks users to also submit their password to the WyIR staff. The basic forms had recently undergone some revisions, but in talking with our HIPAA Compliance Officer, it was suggested that we clarify the intent of the forms to make it easier for users to understand the process. So, we have drafted both Confidentiality and Security Policies and Procedures and when approved by the State HIPAA officer, will also bring us up to the functional standard per the CDC recommendations.

What will this mean for the providers, the users of the system? **Initially, we are asking for each provider to enroll with the WylR on an annual basis, as recommended by the CDC**. In completing this enrollment packet, we will not only acquire more accurate contact information for each office, but also clarify which users may have left the provider's office since enrolling in the program. The enrollment packet will contain a WylR Provider Enrollment Agreement Form; a WylR Provider/User Level Access Form; and an Individual User Agreement. These are also available online.

As previously alluded to, a recent search of current users revealed that there are almost 900 registered active users of the WyIR. A Remove User form is forwarded each year in our toolkit for providers to complete within 24 hours if an employee that was using the WyIR leaves the practice. We do receive these forms regularly, but believe that once the enrollment forms are completed for this year, the number of active users that have access to the WyIR will drop significantly. Through this enrollment process, we will help ensure that only those that are supposed to have access to the confidential information contained within the system are indeed the only ones.

For security purposes, we will eventually replace the format of the current passwords allowed to correlate with HIPAA & WDH IT recommendations as much as structurally possible. We will let everyone know what the changes are to be, and when they will take place in the very near future – most likely within a couple of months. For now, the only impact that your office will feel is that more newborns should be present within the system, and that the only users of the system are those that are authorized to do so.

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ABC Pediatrics Adams, Michael D., MD, PC Albany Co PHN Alpha Family Medicine Alpine Family Medical Clinic Arapahoe Health Center

Banner Medical Clinic Big Horn Basin Children's Clinic Big Horn Co PHN-Greybull Big Horn Co PHN-Lovell

Billings Clinic - Cody

Bridger Valley Family Practice

Brown, Craig, MD Campbell Co Health Dept Carbon Co PHN-Saratoga

Casper Natrona Co. Health Department

Castle Rock Medical Center Cedar Hills Family Clinic Chevenne Children's Clinic

Chevenne Health & Wellness Center Community Health Center of Central

Wyoming Converse Co PHN Crook Co PHN

Ellbogen, David A., MD Emerg-A-Care

Evanston Pediatrics Family Care Clinic, LLC Family Medical Care Family Medical Center Fisher, Carol A., MD Fremont Co Pediatric Clinic

Fremont Co PHN-Lander Fremont Co PHN-Riverton Fremont Family Practice Goodell, Thomas P., MD, PC Goose Creek Pediatrics

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WyVIP congratulates the following providers for submitting their **December reports** correctly by the second business day of the month. I appreciate your hard work and efforts in helping make this Incentive program become a huge success. You all did an awesome job!

> Goshen Co PHN Granum, Michael J., MD Green, Richard D., M.D. Health Care for the Homeless Hot Springs Co PHN

Hunter Family Medical Clinic, PC Ivinson Memorial Hospital Nursery

Jackson Pediatrics Johnson Co PHN Kinbrook, Michelle, MD

Kurt Johnson, MD, PC Family Medicine

Lander Medical Clinic Lander Regional Hospital Laramie Pediatrics

Laramie Physicians for Women and

Children (Children's Clinic) Lincoln Co PHN-Afton Lincoln Co PHN-Kemmerer Medicine Bow Health Center Memorial Hospital of Carbon Co Memorial Hospital of Converse Co Memorial Hospital of Sheridan Co

Moorcroft Clinic Myers, Harlen, MD Niobrara Co PHN Park Co PHN-Cody Park Co PHN-Powell

Pediatric and Adolescent Clinic. Inc.

PHS Indian Health Center Platte Co Memorial Hospital Platte Valley Medical Clinic

Pockat, Tom, MD

Quinn, Michael J., MD-FAAP Red Rock Family Practice Riverton Memorial Hospital Rock Springs Family Practice, Inc. Sheridan Co Comm. Health

Sheridan Family Practice PC South Lincoln Medical Center South Lincoln Medical Clinic South Sheridan Medical Center St. John's Medical Center Star Valley Family Physicians

Sublette Co PHN

Sweetwater Co Comm. Nursing Svcs-

Green River

Sweetwater Co Comm. Nursing Svcs-

Rock Spgs

Sweetwater Pediatrics, PC

Teton Co PHN

The Family Clinic, LLC Thomas, Jennifer, MD, PC Total Family Health, PC Tri-County Medical Center Uinta Co PHN-Evanston Uinta Co PHN-Lyman Uinta Family Practice

Urgent Care of Jackson Hole

UW Student Health

Wagon Circle Medical Clinic

Washakie Co PHN Western Family Care

Western Medical Associates, LLC

Weston Co PHN

Wind River Health Systems Wind River Pediatrics Woodward, Drew, M.D., PC



Tebruary =

					1	2
3	4 Monthly Reports Due	5	6	7	8	9
10	11	12	13	14 Order placed	15	16
17	18 Office Closed	19	20 WIP Telecon- ference	21	22	23

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February

February 4: ALL monthly reports due:

- **Doses Administered**
- Inventory Form
- Temperature Logs
- A REMINDER! The Doses Administered Reports you send in are the basis for replenishing your vaccine orders. If you have Special Clinic Order forms, flu doses administered, transfer of vaccine forms and/or preference forms, please send them at this time, as well.
- February 20: WIP Monthly Teleconference (PLEASE NOTE DATE) 12:15 p.m.-1:30 p.m. Call in information 1-(877)-278-8686, Participant ID 687555.

YOUR BABY'S FIRST VACCINES WHAT YOU NEED TO KNOW

Babies get six vaccines between birth and 6 months of age.

These vaccines protect your baby from 8 serious diseases (see the next page).



Your baby will get vaccines today that prevent these diseases:							
☐ Hepatitis B	☐ Polio	☐ Pne	umococcal Dis	ease			
☐ Diphtheria, ⁻	Tetanus & Pe	rtussis	□ Rotavirus	☐ Hib			
(Provider: Check appropriate boxes)							

These vaccines may be given separately, or some might be given together in the same shot (for example, Hepatitis B and Hib can be given together, and so can DTaP, Polio and Hepatitis B).

These "combination vaccines" are as safe and effective as the individual vaccines, and mean fewer shots for your baby.

These vaccines may all be given at the same visit.

Getting several vaccines at the same time will not harm your baby.

This *Vaccine Information Statement* (VIS) tells you about the benefits and risks of these vaccines. It also contains information about reporting an adverse reaction, the National Vaccine Injury Compensation Program, and how to get more information about childhood diseases and vaccines.

Please read this VIS before your child gets his or her immunizations, and take it home with you afterward. Ask your doctor, nurse, or other healthcare provider if you have questions.

Individual Vaccine Information Statements are also available for these vaccines.

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis





Vaccine Benefits: Why get vaccinated?

Your children's first vaccines protect them from 8 serious diseases, caused by viruses and bacteria. These diseases have injured and killed many children (and adults) over the years. Polio paralyzed about 37,000 people and killed about 1,700 each year in the 1950s before there was a vaccine. In the 1980s, **Hib disease** was the leading cause of bacterial meningitis in children under 5 years of age. About 15,000 people a year died from **diphtheria** before there was a vaccine. Most children have had at least one rotavirus infection by their 5th birthday.

None of these diseases has completely disappeared. Without vaccination, they will come back. This has happened in other parts of the world.

8 Diseases Prevented by Childhood Vaccines

DIPHTHERIA

Bacteria

You can get it from contact with an infected person.

Signs and symptoms include a thick covering in the back of the throat that can make it hard to breathe.

It can lead to breathing problems, heart failure, and death.

TFTANUS (Lockjaw)

Bacteria

You can get it from a cut or wound. It does not spread from person to person.

Signs and symptoms include painful tightening of the muscles, usually all over the body.

It can lead to stiffness of the jaw, so the victim can't open his mouth or swallow. It leads to death in about 1 case out of 5.

PERTUSSIS (Whooping Cough)

Bacteria

You can get it from contact with an infected person.

Signs and symptoms include violent coughing spells that can make it hard for an infant to eat, drink, or breathe. These spells can last for weeks.

It can lead to pneumonia, seizures (jerking and staring spells), brain damage, and death.

☐ ☐ (Haemophilus influenzae type b)

Bacteria

You can get it from contact with an infected person.

Signs and symptoms. There may be no signs or symptoms in mild cases.

It can lead to meningitis (infection of the brain and spinal cord coverings); pneumonia; infections of the blood, joints, bones, and covering of the heart; brain damage; deafness; and death.

HEPATITIS B

Virus

You can get it from contact with blood or body fluids of an infected person. Babies can get it at birth if the mother is infected, or through a cut or wound. Adults can get it from unprotected sex, sharing needles, or other exposures to blood.

Signs and symptoms include tiredness, diarrhea and vomiting, jaundice (yellow skin or eyes), and pain in muscles, joints and stomach.

It can lead to liver damage, liver cancer, and death.

POLIO

Virus

You can get it from close contact with an infected person. It enters the body through the mouth.

Signs and symptoms can include a cold-like illness, or there may be no signs or symptoms at all.

It can lead to paralysis (can't move arm or leg), or death (by paralyzing breathing muscles).

PNEUMOCOCCAL

Bacteria

You can get it from contact with an infected person.

Signs and symptoms include fever, chills, cough, and chest pain.

It can lead to meningitis (infection of the brain and spinal cord coverings), blood infections, ear infections, pneumonia, deafness, brain damage, and death.

ROTAVIRUS

Virus

You can get it from contact with other children who are infected.

Signs and symptoms include severe diarrhea, vomiting and fever.

It can lead to dehydration, hospitalization (up to about 70,000 a year), and death.

How Vaccines Work

Immunity from Disease: When a child gets sick with one of these diseases, her immune system produces immunity, which keeps her from getting the same disease again. But getting sick is unpleasant, and can be dangerous.

Immunity from Vaccines: Vaccines are made with the same bacteria or viruses that cause a disease, but they have been weakened or killed to make them safe. A child's immune system responds to a vaccine the same way it would if the child had the disease. This means he will develop immunity without having to get sick first.

Routine Childhood Vaccines

Six vaccines are recommended for children between birth and 6 months of age. They can prevent the 8 diseases described on the previous page. Children will also get at least one "booster" dose of most of these vaccines when they are older.

- **DTaP** (Diphtheria, Tetanus & Pertussis) Vaccine: <u>5 doses</u> 2 months, 4 months, 6 months, 15-18 months, 4-6 years. Some children should not get pertussis vaccine. These children can get a vaccine called **DT**, which does not contain pertussis.
- Hepatitis B Vaccine: 3 doses Birth, 1-2 months, 6-18 months.
- Polio Vaccine: 4 doses 2 months, 4 months, 6-18 months, 4-6 years.
- **Hib** (*Haemophilus influenzae* type b) Vaccine: <u>4 doses</u> 2 months, 4 months, 6 months, 12-15 months. Several Hib vaccines are available. With one type, the 6-month dose is not needed.
- Pneumococcal Vaccine: 4 doses 2 months, 4 months, 6 months, 12-15 months. Older children with certain diseases may also need this vaccine.
- Rotavirus Vaccine: 3 doses 2 months, 4 months, 6 months. Rotavirus is an oral (swallowed) vaccine, not a shot.

Vaccine Risks

Vaccines can cause side effects, like any other medicine. Mostly these are mild "local" reactions such as **tenderness**, **redness** or **swelling** where the shot is given, or a **mild fever**. They happen in up to 1 child out of 4 with most childhood vaccines. They appear soon after the shot is given and go away within a day or two.

More severe reactions can also occur, but this happens much less often. Some of these reactions are so uncommon that experts can't tell whether they are caused by vaccines or not.

Among the most serious reactions to vaccines are **severe allergic reactions** to a substance in a vaccine. These reactions happen very rarely – less than once in a million shots. They usually happen very soon after the shot is given. Doctor's office or clinic staff are trained to deal with them.

The risk of *any* vaccine causing serious harm, or death, is extremely small. Getting a disease is much more likely to harm a child than getting a vaccine.

Other Reactions

The following conditions have been associated with routine childhood vaccines. By "associated" we mean that they appear more often in children who have been recently vaccinated than in those who have not. An association doesn't *prove* that a vaccine caused a reaction, but does mean it is probable.

DTaP Vaccine

Mild Problems: Fussiness (up to 1 child in 3); tiredness or poor appetite (up to 1 child in 10); vomiting (up to 1 child in 50); swelling of the entire arm or leg for 1-7 days (up to 1 child in 30) – usually after the 4th or 5th dose.

Moderate Problems: Seizure (jerking or staring)(1 child in 14,000); non-stop crying for 3 hours or more (up to 1 child in 1,000); fever over 105°F (1 child in 16,000).

Serious Problems: Long-term seizures, coma, lowered consciousness, and permanent brain damage have been reported very rarely after DTaP vaccine. They are so rare we can't be sure they are caused by the vaccine.

Polio Vaccine / Hepatitis B Vaccine / Hib Vaccine

These vaccines have not been associated with mild problems other than local reactions, or with moderate or serious problems.

Pneumococcal Vaccine

Mild Problems: During studies of the vaccine, some children became fussy or drowsy or lost their appetite.

Rotavirus Vaccine

Mild Problems: Children who get rotavirus vaccine are slightly more likely than other children to have mild, temporary diarrhea or vomiting. This happens within the first week after getting a dose of vaccine. No moderate or serious problems have been associated with the vaccine.

Precautions

If your child is sick on the date vaccinations are scheduled, your provider may want to put them off until she recovers. A child with a mild cold or a low fever can usually be vaccinated that day. But for a more serious illness, it may be better to wait.

Some children should **not get certain vaccines**. Talk with your provider if your child had a serious reaction after a previous dose of a vaccine, or has any life-threatening allergies. (These reactions and allergies are rare.)

- If your child had any of these reactions to a previous dose of DTaP:
 - A brain or nervous system disease within 7 days
 - Non-stop crying for 3 or more hours
 - A seizure or collapse
 - A fever over 105°F

Talk to your provider before getting DTaP Vaccine.

- If your child has:
 - A life-threatening allergy to the antibiotics neomycin, streptomycin, or polymyxin B Talk to your provider before getting **Polio Vaccine**.
- If your child has:
 - A life-threatening allergy to yeast Talk to your provider before getting **Hepatitis B Vaccine**.
- If your child has:
 - A weakened immune system
 - Ongoing digestive problems
 - Recently gotten a blood transfusion or other blood product
 - Ever had intussusception (an uncommon type of intestinal obstruction)

Talk to your provider before getting Rotavirus Vaccine.

What if my child has a moderate or severe reaction?

What should I look for?

Look for any unusual condition, such as a serious allergic reaction, high fever, weakness, or unusual behavior.

Serious allergic reactions are extremely rare with any vaccine. If one were to happen, it would most likely come within a few minutes to a few hours after the shot.

Signs of a serious allergic reaction can include:

- difficulty breathing
- weakness
- hives
- hoarseness or wheezing
- dizziness
- paleness

- swelling of the throat
- fast heart beat

What should I do?

Call a doctor, or get the child to a doctor right away.

Tell your doctor what happened, the date and time it happened, and when the shot was given.

Ask your healthcare provider to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form. Or you can file this report yourself through the VAERS website at **www.vaers.hhs.gov**, or by calling **1-800-822-7967**.

VAERS does not provide medical advice.

The National Vaccine Injury Compensation Program

A federal program exists to help pay for the care of anyone who has a serious reaction to a vaccine.

For information about the National Vaccine Injury Compensation Program, call 1-800-338-2382 or visit their website at www.hrsa.gov/vaccinecompensation.

For More Information

Ask your healthcare provider. They can show you the vaccine package insert or suggest other sources of information.

Call your local or state health department.

Contact the Centers for Disease Control and Prevention (CDC) at 1-800-232-4636 (1-800-CDC-INFO).

Visit CDC websites at www.cdc.gov/vaccines and www.cdc.gov/ncidod/diseases/hepatitis.

Recommended Immunization Schedule for Persons Aged 0-6 Years—UNITED STATES • 2008

For those who fall behind or start late, see the catch-up schedule

Vaccine ▼ Age ►	Birth	1 month	2 months	4 months	6 months	12 months	15 months	18 months	19–23 months	2–3 years	4–6 years
Hepatitis B ¹	НерВ	He	рВ	see footnote 1		He	рВ	:			
Rotavirus ²		* * * * * * * * * * * * * * * * * * *	Rota	Rota	Rota	**************************************	* * * * * * * * * * * * * * * * * * *		•		
Diphtheria, Tetanus, Pertussis ³		**************************************	DTaP	DTaP	DTaP	see footnote3	DT	aP	0		DTaP
Haemophilus influenzae type b	•	**************************************	Hib	Hib	Hib⁴	Н	ib	**************************************			
Pneumococcal⁵	•	**************************************	PCV	PCV	PCV	P	CV	# * * * * * * * * * * * * * * * * * * *		P	PV
Inactivated Poliovirus		**************************************	IPV	IPV		IF	V				IPV
Influenza ⁶		**************************************					Influer	ıza (Yea	rly)		
Measles, Mumps, Rubella ⁷		**************************************			**************************************	MI	MR	**************************************			MMR
Varicella ⁸	•	**************************************			**************************************	Vari	cella	**************************************			Varicella
Hepatitis A ⁹	•	• • • • • • • • • • • • • • • • • • •					HepA (2 doses)	НерА	Series
Meningococcal ¹⁰				•						M	V4

Certain high-risk groups

Range of recommended ages

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2007, for children aged 0 through 6 years. Additional information is available at www.cdc.gov/vaccines/recs/schedules. Any dose not administered at the recommended age should be administered at any subsequent visit, when indicated and feasible. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and other components of the vaccine are not

contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective Advisory Committee on Immunization Practices statement for detailed recommendations, including for high risk conditions: http://www.cdc.gov/vaccines/pubs/ACIP-list.htm. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete VAERS form is available at www.vaers.hhs.gov or by telephone, 800-822-7967.

1. Hepatitis B vaccine (HepB). (Minimum age: birth) At birth:

- Administer monovalent HepB to all newborns prior to hospital discharge.
- If mother is hepatitis B surface antigen (HBsAg)-positive, administer HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth.
- If mother's HBsAg status is unknown, administer HepB within 12 hours of birth. Determine the HBsAg status as soon as possible and if HBsAg-positive, administer HBIG (no later than age 1 week).
- If mother is HBsAg-negative, the birth dose can be delayed, in rare cases, with a provider's order and a copy of the mother's negative HBsAg laboratory report in the infant's medical record.

After the birth dose:

The HepB series should be completed with either monovalent HepB or a
combination vaccine containing HepB. The second dose should be administered
at age 1–2 months. The final dose should be administered no earlier than age
24 weeks. Infants born to HBsAg-positive mothers should be tested for HBsAg
and antibody to HBsAg after completion of at least 3 doses of a licensed HepB
series, at age 9–18 months (generally at the next well-child visit).

4-month dose:

 It is permissible to administer 4 doses of HepB when combination vaccines are administered after the birth dose. If monovalent HepB is used for doses after the birth dose, a dose at age 4 months is not needed.

2. Rotavirus vaccine (Rota). (Minimum age: 6 weeks)

- Administer the first dose at age 6-12 weeks.
- Do not start the series later than age 12 weeks.
- Administer the final dose in the series by age 32 weeks. Do not administer any dose later than age 32 weeks.
- Data on safety and efficacy outside of these age ranges are insufficient.

3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP). (Minimum age: 6 weeks)

- The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose.
- Administer the final dose in the series at age 4–6 years.

4. Haemophilus influenzae type b conjugate vaccine (Hib). (Minimum age: 6 weeks)

- If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required.
- TriHIBit[®] (DTaP/Hib) combination products should not be used for primary immunization but can be used as boosters following any Hib vaccine in children age 12 months or older.

- 5. Pneumococcal vaccine. (Minimum age: 6 weeks for pneumococcal conjugate vaccine [PCV]; 2 years for pneumococcal polysaccharide vaccine [PPV])
 - Administer one dose of PCV to all healthy children aged 24–59 months having any incomplete schedule.
 - Administer PPV to children aged 2 years and older with underlying medical conditions.
- 6. Influenza vaccine. (Minimum age: 6 months for trivalent inactivated influenza vaccine [TIV]; 2 years for live, attenuated influenza vaccine [LAIV])
 - Administer annually to children aged 6–59 months and to all close contacts of children aged 0–59 months.
 - Administer annually to children 5 years of age and older with certain risk factors, to other persons (including household members) in close contact with persons in groups at higher risk, and to any child whose parents request vaccination.
 - For healthy nonpregnant persons (those who do not have underlying medical conditions that predispose them to influenza complications) ages 2–49 years, either LAIV or TIV may be used.
 - Children receiving TIV should receive 0.25 mL if age 6-35 mos or 0.5 mL if age 3 years or older.
 - Administer 2 doses (separated by 4 weeks or longer) to children younger than 9 years who are receiving influenza vaccine for the first time or who were vaccinated for the first time last season, but only received one dose.

7. Measles, mumps, and rubella vaccine (MMR). (Minimum age: 12 months)

 Administer the second dose of MMR at age 4–6 years. MMR may be administered before age 4–6 years, provided 4 weeks or more have elapsed since the first dose.

8. Varicella vaccine. (Minimum age: 12 months)

- Administer second dose at age 4–6 years; may be administered 3 months or more after first dose.
- Don't repeat second dose if administered 28 days or more after first dose.

9. Hepatitis A vaccine (HepA). (Minimum age: 12 months)

- HepA is recommended for all children aged 1 yr (i.e., aged 12–23 months).
 The 2 doses in the series should be administered at least 6 months apart.
- Children not fully vaccinated by age 2 years can be vaccinated at subsequent visits.
- HepA is recommended for certain other groups of children, including in areas where vaccination programs target older children.

10. Meningococcal vaccine. (Minimum age: 2 years for meningococcal conjugate vaccine (MCV4) and for meningococcal polysaccharide vaccine (MPSV4))

- MCV4 is recommended for children aged 2–10 years with terminal complement deficiencies or anatomic or functional asplenia and certain other high-risk groups. Use of MPSV4 is also acceptable.
- Persons who received MPSV4 3 or more years prior and remain at increased risk for meningococcal disease should be vaccinated with MCV4.

Recommended Immunization Schedule for Persons Aged 7–18 Years—UNITED STATES • 2008

For those who fall behind or start late, see the green bars and the catch-up schedule

Vaccine ▼ Age ►	7-10 years	11-12 years	13-18 years	
Diphtheria, Tetanus, Pertussis ¹	see footnote 1	Tdap	Tdap	
Human Papillomavirus²	see footnote 2	HPV (3 doses)	HPV Series	Range recom
Meningococcal ³	MCV4	MCV4	MCV4	ages
Pneumococcal ⁴		PPV		
Influenza ⁵		Influenza (Yearly)		Catch- immur
Hepatitis A ⁶		HepA Series		
Hepatitis B ⁷		HepB Series		Certair
Inactivated Poliovirus ⁸		IPV Series		high-ri: groups
Measles, Mumps, Rubella ⁹		MMR Series		
Varicella ¹⁰		Varicella Series		

This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2007, for children aged 7–18 years. Additional information is available at www.cdc.gov/vaccines/recs/schedules. Any dose not administered at the recommended age should be administered at any subsequent visit, when indicated and feasible. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and other components of the vaccine are not

contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the respective Advisory Committee on Immunization Practices statement for detailed recommendations, including for https://www.cdc.gov/vaccines/pubs/ACIP-list.htm. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete VAERS form is available at www.vaers.hhs.gov or by telephone, 800-822-7967.

- 1. Tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap). (Minimum age: 10 years for BOOSTRIX® and 11 years for ADACEL™)
 - Administer at age 11–12 years for those who have completed the recommended childhood DTP/DTaP vaccination series and have not received a tetanus and diphtheria toxoids (Td) booster dose.
 - 13–18 year olds who missed the 11–12 year Tdap or received Td only, are encouraged to receive one dose of Tdap 5 years after the last Td/DTaP dose.
- 2. Human papillomavirus vaccine (HPV). (Minimum age: 9 years)Administer the first dose of the HPV vaccine series to females at age
 - Administer the first dose of the HPV vaccine series to females at age 11–12 years.
 - Administer the second dose 2 months after the first dose and the third dose 6 months after the first dose.
 - Administer the HPV vaccine series to females at age 13–18 years if not previously vaccinated.

3. Meningococcal vaccine.

- Administer MCV4 at age 11–12 years and at age 13–18 years if not previously vaccinated. MPSV4 is an acceptable alternative.
- Administer MCV4 to previously unvaccinated college freshmen living in dormitories.
- MCV4 is recommended for children aged 2-10 years with terminal complement deficiencies or anatomic or functional asplenia and certain other high-risk groups.
- Persons who received MPSV4 3 or more years prior and remain at increased risk for meningococcal disease should be vaccinated with MCV4.

4. Pneumococcal polysaccharide vaccine (PPV).

Administer PPV to certain high-risk groups.

5. Influenza vaccine.

- Administer annually to all close contacts of children aged 0-59 months.
- Administer annually to persons with certain risk factors, health-care workers, and other persons (including household members) in close contact with persons in groups at higher risk.

- Administer 2 doses (separated by 4 weeks or longer) to children younger than 9 years who are receiving influenza vaccine for the first time or who were vaccinated for the first time last season, but only received one dose.
- For healthy nonpregnant persons (those who do not have underlying medical conditions that predispose them to influenza complications) ages 2–49 years, either LAIV or TIV may be used.

6. Hepatitis A vaccine (HepA).

- The 2 doses in the series should be administered at least 6 months apart.
- HepA is recommended for certain other groups of children, including in areas where vaccination programs target older children.

7. Hepatitis B vaccine (HepB).

- Administer the 3-dose series to those who were not previously vaccinated.
- A 2-dose series of Recombivax HB® is licensed for children aged 11–15 years.

8. Inactivated poliovirus vaccine (IPV).

- For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if the third dose was administered at age 4 years or older.
- If both OPV and IPV were administered as part of a series, a total of 4 doses should be administered, regardless of the child's current age.

9. Measles, mumps, and rubella vaccine (MMR).

• If not previously vaccinated, administer 2 doses of MMR during any visit, with 4 or more weeks between the doses.

10. Varicella vaccine.

- Administer 2 doses of varicella vaccine to persons younger than 13 years of age at least 3 months apart. Do not repeat the second dose, if administered 28 or more days following the first dose.
- Administer 2 doses of varicella vaccine to persons aged 13 years or older at least 4 weeks apart.

Catch-up Immunization Schedule

for Persons Aged 4 Months-18 Years Who Start Late or Who Are More Than 1 Month Behind

The table below provides catch-up schedules and minimum intervals between doses for children whose vaccinations have been delayed. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Use the section appropriate for the child's age.

		CATCH-UP SCHEDULE FOR PER	SONS AGED 4 MONTHS-6 YEARS						
Vocalna	Minimum Age	Minimum Interval Between Doses							
Vaccine	for Dose 1	Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5				
Hepatitis B ¹	Birth	4 weeks	8 weeks (and 16 weeks after first dose)		ļ				
Rotavirus ²	6 wks	4 weeks	4 weeks		[
Diphtheria, Tetanus, Pertussis³	6 wks	4 weeks	4 weeks	6 months	6 months ³				
Haemophilus influenzae type b ⁴	6 wks	4 weeks if first dose administered at younger than 12 months of age 8 weeks (as final dose) if first dose administered at age 12-14 months No further doses needed if first dose administered at 15 months of age or older	4 weeks ⁴ if current age is younger than 12 months 8 weeks (as final dose) ⁴ if current age is 12 months or older and second dose administered at younger than 15 months of age No further doses needed if previous dose administered at age 15 months or older	8 weeks (as final dose) This dose only necessary for children aged 12 months-5 years who received 3 doses before age 12 months					
Pneumococcal ⁵	6 wks	4 weeks if first dose administered at younger than 12 months of age 8 weeks (as final dose) if first dose administered at age 12 months or older or current age 24–59 months No further doses needed for healthy children if first dose administered at age 24 months or older	4 weeks if current age is younger than 12 months 8 weeks (as final dose) if current age is 12 months or older No further doses needed for healthy children if previous dose administered at age 24 months or older	8 weeks (as final dose) This dose only necessary for children aged 12 months-5 years who received 3 doses before age 12 months					
Inactivated Poliovirus ⁶	6 wks	4 weeks	4 weeks	4 weeks ⁶	1				
Measles, Mumps, Rubella ⁷	12 mos	4 weeks			1				
Varicella ⁸	12 mos	3 months			1				
Hepatitis A ⁹ 12 m		6 months			1				
		CATCH-UP SCHEDULE FOR	PERSONS AGED 7–18 YEARS						
Tetanus, Diphtheria/ Tetanus, Diphtheria, Pertussis ¹⁰	7 yrs ¹⁰	4 weeks	4 weeks if first dose administered at younger than 12 months of age 6 months if first dose administered at age 12 months or older	6 months if first dose administered at younger than 12 months of age					
Human Papillomavirus ¹¹	9 yrs	4 weeks	12 weeks		1				
Hepatitis A ⁹	12 mos	6 months							
Hepatitis B¹	Birth	4 weeks	8 weeks (and 16 weeks after first dose)						
Inactivated Poliovirus ⁶	6 wks	4 weeks	4 weeks	4 weeks ⁶					
Measles, Mumps, Rubella ⁷	12 mos	4 weeks			1				
Varicella ⁸	12 mos	4 weeks if first dose administered at age 13 years or older 3 months if first dose administered at younger than 13 years of age							

1. Hepatitis B vaccine (HepB).

- Administer the 3-dose series to those who were not previously vaccinated.
- A 2-dose series of Recombivax HB® is licensed for children aged 11-15 years.

2. Rotavirus vaccine (Rota).

- Do not start the series later than age 12 weeks.
- · Administer the final dose in the series by age 32 weeks.
- Do not administer a dose later than age 32 weeks.
- · Data on safety and efficacy outside of these age ranges are insufficient.

3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP).

- The fifth dose is not necessary if the fourth dose was administered at age 4 years or older.
- DTaP is not indicated for persons aged 7 years or older.

4. Haemophilus influenzae type b conjugate vaccine (Hib).

- Vaccine is not generally recommended for children aged 5 years or older.
- If current age is younger than 12 months and the first 2 doses were PRP-OMP (PedvaxHIB® or ComVax® [Merck]), the third (and final) dose should be administered at age 12–15 months and at least 8 weeks after the second dose.
- If first dose was administered at age 7–11 months, administer 2 doses separated by 4 weeks plus a booster at age 12–15 months.

5. Pneumococcal conjugate vaccine (PCV).

- · Administer one dose of PCV to all healthy children aged 24-59 months having any incomplete schedule.
- For children with underlying medical conditions administer 2 doses of PCV at least 8 weeks apart if previously received less than 3 doses or 1 dose of PCV if previously received 3 doses.

6. Inactivated poliovirus vaccine (IPV).

 For children who received an all-IPV or all-oral poliovirus (OPV) series, a fourth dose is not necessary if third dose was administered at age 4 years or older.

- If both OPV and IPV were administered as part of a series, a total of 4 doses should be administered, regardless of the child's current age.
- IPV is not routinely recommended for persons aged 18 years and older.

7. Measles, mumps, and rubella vaccine (MMR).

- The second dose of MMR is recommended routinely at age 4–6 years but may be administered earlier if desired.
- If not previously vaccinated, administer 2 doses of MMR during any visit with 4 or more weeks between the doses.

8. Varicella vaccine.

- The second dose of varicella vaccine is recommended routinely at age 4–6 years but may be administered earlier if desired.
- Do not repeat the second dose in persons younger than 13 years of age if administered 28 or more days after the first dose.

9. Hepatitis A vaccine (HepA).

 HepA is recommended for certain groups of children, including in areas where vaccination programs target older children. See MMWR 2006;55(No. RR-7):1–23.

Tetanus and diphtheria toxoids vaccine (Td) and tetanus and diphtheria toxoids and acellular pertussis vaccine (Tdap).

- Tdap should be substituted for a single dose of Td in the primary catch-up series or as a booster
 if age appropriate; use Td for other doses.
- A 5-year interval from the last Td dose is encouraged when Tdap is used as a booster dose. A
 booster (fourth) dose is needed if any of the previous doses were administered at younger than
 12 months of age. Refer to ACIP recommendations for further information.
 See MMWR 2006;55(No. RR-3).

11. Human papillomavirus vaccine (HPV).

• Administer the HPV vaccine series to females at age 13-18 years if not previously vaccinated.

WIP Monthly Teleconference Meeting Minutes

Date and Location	Wednesday, January 23, 2008 12:15 PM - 1:30 PM
Attendees	Jan Bloom, Immunization Section Chief Andrea Clement-Johnson, Immunization Education and Outreach Program Manager Karoleigh Cassel, Immunization Section Administrative Specialist Brenda Warburton-Smith, Vaccine Coordinator, Vaccine Program Lisa Wordeman, Vaccine Clerk, Vaccine Program Randy DeBerry, Vaccine Program Manager John Anderson, WylR (Immunization Registry) Program Manager Lily Valdez, Vaccine Program Provider Relations Administrative Assistant Grace Neeley, Outreach Specialist Lola Wolfe, Advantage Visit Data Clerk Joanna Briggs, Joanna Briggs, RN, WIP Clinical Coordinator and Education and Outreach Program, Outreach Specialist Molly Bruner, M.S.N., R.N., Community & Rural Health Division Administrator Brent D. Sherard, M.D., M.P.H., Wyoming Department of Health Director and State Health Officer Albany County Public Health Lincoln County Public Health Converse County Public Health Cheyenne City County Health Big Horn County Public Health Carbon County Public Health Carbon County Public Health Dr. Fisher's Office Platte County Public Health Dr. Fisher's Office Platte County Public Health Dr. Wohl and Dr. Ross from NE Wyoming Pediatrics
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NOTES

Jan's Update

We have seen some issues with providers not having emergency plans in place. We want providers to have emergency plans in full view of all staff. We are at a much higher wastage rate than is acceptable by CDC standards. We have seen \$100,000 worth of vaccine lost in the last few months. In one instance where there was a problem with the refrigerator and another instance where the vaccine was delivered and the front office staff signed for the vaccine shipment and then put the cooler behind the door and the vaccine was not put into the refrigerator. The emergency plans are mainly for refrigerator issues. The incident with not putting the vaccine into cold storage was a fraud and abuse issue. Emergency Vaccine Storage and Handling plan must include following:

- Person responsible for preparing and transporting vaccine including contact information needs
 to notified immediately if there is a problem with vaccine or refrigeration units (power failures,
 natural disasters, etc.). Vaccine will need to be moved to backup unit.
- If vaccine received says refrigerate immediately on the box, that the vaccine is refrigerated immediately upon arrival.

Regarding reports, please send in monthly forms including doses administered, inventory and temperature logs by the Second Business Day of the Month. We will now just be going to a strictly replenishment. If you do not have your forms in a timely fashion, we will not be able to place your vaccine order.

In addition, it is important to note, that we must receive a temperature log for every unit that has our vaccine in it, including the portable units that you transport vaccine to clinics. We require this to ensure the cold-chain compliance for our vaccine. We realize that some clinic house some of their vaccine at other locations. We need temperature logs for any refrigerator holding our vaccine.

Also, please monitor closely the expiration dates of vaccine in your inventory. We would like to decrease the wastage rate on vaccine and can do so by getting the vaccine to where it can be used before it expires. If you see that you have vaccine that is expiring in three months or less, please let us know so that we can try to get it redistributed to another provider.

We have been notified in the last few weeks that there have been some shipment issues. Some providers are getting bad vaccine. Please let us know immediately about any issues like this so we can take action contact McKesson so that we can get your vaccine replenished.

We are unable to place urgent or emergency orders as this is cost-prohibitive. There are certain exceptions that can be reviewed on a case by case basis.

We are interested in receiving feedback on Flu Supply for 2007-2008 as we are starting to plan for the pre-booking for the next Flu Season.

Dr. Sherard's Update

The Health Department's Budget has been submitted and supported by the Governor. This includes the \$800,000 exception submitted for Immunization for the rest of the Biennium.

Budget Updates - Jan

Through January 23, 2008 we have spent almost \$3.5 million of the \$5 million dollar State Vaccine Appropriation. This leaves approximately \$1.3 million dollars of the appropriation. If we maintain vaccine expenditures at \$188,000 per month we should remain on track through the end of the biennium which ends June 30, 2008.

Vaccine Program Updates-Randy

Updated vaccine ordering procedure as of February 1, 2008: In the past we have been calling providers to talk to you about your orders. We are now going to a replenishment only system. We look at the Doses Administered report for the previous month, then convert the Doses Administered into what actual the actual replenishment order would be, rounding up to next number divisible by 10 (i.e. If you have used 8 doses of DTaP we would round up to 10). We then compare doses administered to inventory on hand.

We will only place order if inventory falls below three times previous doses administered. If the inventory minus doses administered is three times or greater, no order will be placed. If you need more vaccine for upcoming clinics than your standard replenishment, you can fill out a Special Clinic order form. This new ordering system brings us into compliance with what the CDC has implemented. We will not be doing tiered ordering. We are now putting a rhyme to reason. This updated system should be more efficient.

Update on HIB orders: ActHib orders were not on last order because of issues with some States ordering incorrectly. This is something McKesson is working on with the manufacturer to get corrected.

They will be sending out the ActHib as soon as they get it to ship. PedVax Hib's availability has been pushed back until 2009. Comvax is currently unavailable.

Reminder on Doses Administered Forms: Please do not turn in Doses Administered using tick marks instead of whole numbers. Some of the faxes that come through are difficult to read and we need to make sure that the numbers on the form are accurate. It is okay for you to do the tick marks on forms you keep as long as you transfer those numbers to a new form as whole numbers before they are faxed to use. Please call us with any questions.

Clinical Updates – Joanna

We are not currently authorizing the booster dose of ActHib unless a child is high risk because of the Hib shortage. The combination vaccine Pentacel when it is released will vaccinate against diphtheria, tetanus, pertussis, polio, and Hib.

Reminder about cold-chain: If you take vaccine away in a portable unit, the unit has to be certified as cold-chain compliant, with temperatures taken hourly.

Education & Outreach Program Updates – Andrea

At the time of this teleconference, twenty providers had not yet sent in their enrollment forms for 2008. A reminder: we cannot accept faxed copies of the agreement with signatures; we need original signatures on file. For those who have not sent in their enrollment packet yet, please do so. Otherwise, your ordering status may have to be suspended.

The 2008 Policy and Procedures manual will be out to you soon in a draft form. We will send out other updates and changes as they come to us from the CDC. Toolkits will be shipped the first part of February.

Posters and Materials Update: If anyone is in need of posters and materials, please let us know and we can create something for you.

We now have some DVDs about cold-chain and how to protect your vaccine supply. Please contact us if you would like for us to send one out to you.

Reminder: If you need help drafting an emergency plan for your staff, please let us know and we would be happy to help you.

Welcome to Grace Neeley, our new Outreach Specialist. She comes to us after having taught middle-school. She will be doing Advantage Visits in the Southeastern part of Wyoming. If you have any questions, please contact Grace at 307-777-8982.

Immunization Registry (WyIR) Update – John

We are reviewed annually by the CDC for our standards and practice in the registry. One problem was not having a timely link to vital statistics. We uploaded 13,000 birth records filling in the gap that existed. We're now uploading monthly birth records from Vital Records. When a newborn presents to provider for 2 month shots, they should already be in the system.

We have now drafted a confidentiality and security agreements. We consulted with the HIPAA Office to ensure we were compliant. We will require agreements be sent in annually. The forms are now posted to www.immunizewyoming.com under the WylR page.

Reminder: If providers have WyIR users that are leaving the practice, we need to have a Remove User Form faxed to us within 24 hours.

System Bugs: All the current Bugs and registry issues have been posted to the web site.

Questions & Answers

Q: Are we going to have enough Flu for all kids across the State next year?

A: Yes. We just need to know if you had an adequate supply this year. We have had a little bit of surplus this year.

Q: How is the new system going to affect vaccine shortages?

A: If we go by your doses administered and inventory, we can make sure you have a three month supply. If you are having concerns about keeping adequate inventory, please contact Jan Bloom at 307-777-6001.

Q: Will the replenishment Orders be based off of the Registry reports or manual forms?

A: Unless there are problems with your registry reports, or your registry status, we will go off of the registry reports for replenishment.

Q: If we see that a vaccine in our inventory is getting close to expiring, can we give to the general public.

A: Please call us and we will make the determination on a case to case basis.

Q: Is Menactra preferred for high-risk children?

A: Yes, for 2 years to 11 years of age. Otherwise, recommended for ages 11 years of age and up.

Next Monthly Teleconference: February 20, 2008 from 12:15 p.m. to 1:30 p.m.

Doses Administered Forms Request from the WyVIP Staff-Randy DeBerry

Many providers keep a running tally of their doses administered each month by keeping a copy of the form on or close to their refrigerator. Providers use this form to keep track of their WyVIP vaccinations by adding a tick mark or dot on the Doses Administered form each time a vaccination is given. Clinics then send WIP this tally-version of the Doses Administered to fulfill the requirements of monthly reporting. While we understand the ease for using marks or dots for tracking the administration of shots, in the future we would like to ask that instead of submitting the Doses Administered form with tick marks or dots on it, to send us one with written numbers for each category. We are not trying to be difficult here, but many times the tick marks or dots do not come through the fax well and this causes WIP staff difficulty in reading the forms. This equates into taking the time to call you and have you investigate the number before we can place your order. If you would like to continue using tick marks or dots for the actual administration of vaccine and then transposing these with written numbers onto a "clean" Doses Administered for the actual monthly report, this would certainly be acceptable. In the interest of processing your orders in as timely and accurate manner as possible, we ask for your cooperation in this mater and we thank you in advance for your help.

IMPORTANT INFORMATION ABOUT APPROVED USAGE OF ActHIB VACCINE



ActHIB vaccine is administered as a 4-dose vaccine series, consisting of a 3-dose primary series at 2, 4, and 6 months of age, and a booster dose at 15 through 18 months of age

The Centers for Disease Control and Prevention (CDC) has instituted new interim recommendations for Hib vaccination

- The CDC recommends that providers temporarily defer administering the routine Hib^a vaccine booster dose typically given at 12 through 15 months of age **except** for children at increased risk for invasive Hib disease, including children with the following conditions or characteristics:
 - Sickle cell disease, leukemia, and malignant neoplasms
- Asplenia
- Human immunodeficiency virus (HIV) and certain other immunocompromising conditions
- American Indian
- Alaska Native

Please refer to the Morbidity and Mortality Weekly Report (MMWR) for a full list of high-risk conditions and characteristics: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5650a4.htm

ActHIB vaccine requires reconstitution (mixing) before use

- Each dose of ActHIB vaccine should be reconstituted only with the supplied diluent
- Please follow these steps for proper reconstitution:

Step 1.



Cleanse stopper and agitate the vial of diluent used to reconstitute ActHIB vaccine.

Step 2.



Withdraw volume of diluent as indicated.

Step 3.



Cleanse the ActHIB vaccine stopper, insert syringe needle through the rubber stopper, and inject volume as directed.

Step 4.



Agitate vial thoroughly.



After reconstitution with diluent, withdraw 0.5mL of reconstituted vaccine and administer intramuscularly.

- Once reconstituted, the resulting liquid should appear clear and colorless with no particulate matter
- · ActHIB vaccine should be administered within 24 hours of being reconstituted

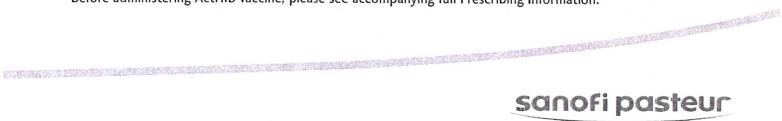
Maintain proper storage conditions

- ActHIB vaccine and its accompanying diluent should be stored at 2° to 8°C (35° to 46°F). Do not freeze
- The American Medical Association CPT®b (Current Procedural Terminology) code is 90721

For more information about ActHIB vaccine or the current market situation, please go to www.vaccineshoppe.com and click on "Important Information Regarding Haemophilus influenzae type b (Hib) Vaccine."

To order ActHIB vaccine, please call 1-800-VACCINE (1-800-822-2463).

Before administering ActHIB vaccine, please see accompanying full Prescribing Information.



Guidelines for completing the booster series with ActHIB vaccine

According to the CDC guidelines published at the Advisory Committee on Immunization Practices (ACIP) General Recommendations on Immunization (http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5515a1.htm), and the Interim Recommendations published December 19, 2007 (http://www.cdc.gov/mmwr/preview/mmwrhtml/mm56d1219a1.htm), if it becomes necessary to complete the series with ActHIB vaccine for patients who were started with PedvaxHIB® (Haemophilus b Conjugate [Meningococcal Protein Conjugate]) or COMVAX® (Haemophilus b Conjugate [Meningococcal Protein Conjugate] and Hepatitis b [Recombinant] Vaccine),^c the following guidelines should be followed:

- If only 1 dose of PedvaxHIB vaccine or COMVAX vaccine has been administered at 2 months of age, the primary series may be completed with 2 additional doses of ActHIB vaccine at 4 and 6 months of age
- If a child was given 1 dose of ActHIB vaccine at 2 months of age and 1 dose of PedvaxHIB vaccine or COMVAX vaccine at 4 months of age, the primary series may be completed with 1 additional dose of ActHIB vaccine at 6 months of age
- If 2 doses of PedvaxHIB vaccine or COMVAX vaccine have been administered at 2 and 4 months of age, the primary series has been completed
- There should be a minimum interval of 4 weeks between each dose in the primary series. Based on the interim CDC recommendations announced December 19, 2007, the booster dose should be deferred for healthy children
- Children at high risk for invasive Hib disease^d should receive a toddler booster dose of Hib vaccine. American Indian
 and Alaska Native (Al/AN) children living in Al/AN communities will preferentially receive PedvaxHIB vaccine or COMVAX
 vaccine for the booster dose. Al/AN children not living in Al/AN communities and other children at high risk for invasive
 Hib disease^d may receive any Hib vaccine for the booster dose

Indication

ActHIB vaccine is indicated for the active immunization of infants and children 2 through 18 months of age for prevention of invasive *Haemophilus influenzae* type b disease.

Safety Information

There are risks associated with all vaccines. The most common local and systemic adverse reactions to ActHIB vaccine include injection site erythema, swelling, and tenderness; fever, irritability, drowsiness, and anorexia. Other adverse reactions may occur. ActHIB vaccine is contraindicated in persons with known hypersensitivity to any component of the vaccine. As with any vaccine, vaccination with ActHIB vaccine may not protect 100% of individuals.

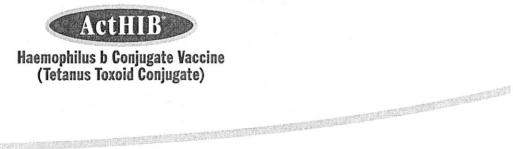
Before administering ActHIB vaccine, please see accompanying full Prescribing Information.

^a Haemophilus influenzae type b.

b CPT is a registered trademark of the American Medical Association.

CP1 is a registered trademark of the American Medical Association
CPedvaxHIB and COMVAX are registered trademarks of Merck & Co., Inc.

d Children at increased risk for Hib disease include Alaska Native and American Indian children, children with sickle cell disease, Human Immunodeficiency Virus (HIV) infection, anatomic or functional asplenia, malignancies, or other immunodeficiency syndromes ActHIB vaccine is manufactured by Sanofi Pasteur SA and distributed by Sanofi Pasteur Inc.





MENINGOCOCCAL VACCINES

WHAT YOU NEED TO KNOW

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis.

What is meningococcal disease?

Meningococcal disease is a serious bacterial illness. It is a leading cause of **bacterial meningitis** in children 2 through 18 years old in the United States. Meningitis is an infection of the fluid surrounding the brain and spinal cord.

Meningococcal disease also causes blood infections.

About 1,000 - 2,600 people get meningococcal disease each year in the U.S. Even when they are treated with antibiotics, 10-15% of these people die. Of those who survive, another 11-19% lose their arms or legs, become deaf, have problems with their nervous systems, become mentally retarded, or suffer seizures or strokes.

Anyone can get meningococcal disease. But it is most common in infants less than one year of age and people with certain medical conditions, such as lack of a spleen. College freshmen who live in dormitories, and teenagers 15-19 have an increased risk of getting meningococcal disease.

Meningococcal infections can be treated with drugs such as penicillin. Still, about 1 out of every ten people who get the disease dies from it, and many others are affected for life. This is why *preventing* the disease through use of meningococcal vaccine is important for people at highest risk.

2 | Meningococcal vaccine

There are two kinds of meningococcal vaccine in the U.S.:

- Meningococcal conjugate vaccine (MCV4) was licensed in 2005. It is the preferred vaccine for people 2 through 55 years of age.
- Meningococcal polysaccharide vaccine (MPSV4) has been available since the 1970s. It may be used if MCV4 is not available, and is the only meningococcal vaccine licensed for people older than 55.

Both vaccines can prevent 4 types of meningococcal disease, including 2 of the 3 types most common in the United States and a type that causes epidemics in Africa. Meningococcal vaccines cannot prevent all types of the disease. But they do protect many people who might become sick if they didn't get the vaccine.

Both vaccines work well, and protect about 90% of people who get them. MCV4 is expected to give better, longer-lasting protection.

MCV4 should also be better at preventing the disease from spreading from person to person.

Who should get meningococcal vaccine and when?

A dose of MCV4 is recommended for children and adolescents 11 through 18 years of age.

This dose is normally given during the routine preadolescent immunization visit (at 11-12 years). But those who did not get the vaccine during this visit should get it at the earliest opportunity.

Meningococcal vaccine is also recommended for other people at increased risk for meningococcal disease:

- College freshmen living in dormitories.
- Microbiologists who are routinely exposed to meningococcal bacteria.
- U.S. military recruits.
- Anyone traveling to, or living in, a part of the world where meningococcal disease is common, such as parts of Africa.
- Anyone who has a damaged spleen, or whose spleen has been removed.
- Anyone who has terminal complement component deficiency (an immune system disorder).
- People who might have been exposed to meningitis during an outbreak.

MCV4 is the preferred vaccine for people 2 through 55 years of age in these risk groups. MPSV4 can be used if MCV4 is not available and for adults over 55.

How Many Doses?

People 2 years of age and older should get 1 dose. Sometimes a second dose is recommended for people who remain at high risk. Ask your provider.

MPSV4 may be recommended for children 3 months to 2 years of age under special circumstances. These children should get 2 doses, 3 months apart.

Some people should not get meningococcal vaccine or should wait

- Anyone who has ever had a severe (life-threatening)
 allergic reaction to a previous dose of either
 meningococcal vaccine should not get another dose.
- Anyone who has a severe (life threatening) allergy to any vaccine component should not get the vaccine.
 Tell your provider if you have any severe allergies.
- Anyone who is moderately or severely ill at the time
 the shot is scheduled should probably wait until they
 recover. Ask your provider. People with a mild illness
 can usually get the vaccine.
- Anyone who has ever had **Guillain-Barré Syndrome** should talk with their provider before getting MCV4.
- Meningococcal vaccines may be given to pregnant women. However, MCV4 is a new vaccine and has not been studied in pregnant women as much as MPSV4 has. It should be used only if clearly needed.
- Meningococcal vaccines may be given at the same time as other vaccines.

What are the risks from meningococcal vaccines?

A vaccine, like any medicine, could possibly cause serious problems, such as severe allergic reactions. The risk of meningococcal vaccine causing serious harm, or death, is extremely small.

Mild problems

As many as half the people who get meningococcal vaccines have mild side effects, such as redness or pain where the shot was given.

If these problems occur, they usually last for 1 or 2 days. They are more common after MCV4 than after MPSV4.

A small percentage of people who receive the vaccine develop a fever.

Severe problems

- Serious allergic reactions, within a few minutes to a few hours of the shot, are very rare.
- A serious nervous system disorder called **Guillain-Barré Syndrome** (or GBS) has been reported among some people who received MCV4. This happens so rarely that it is currently not possible to tell if the vaccine might be a factor. Even if it is, the risk is very small.

What if there is a moderate or severe reaction?

What should I look for?

 Any unusual condition, such as a high fever, weakness, or behavior changes. Signs of a serious allergic reaction can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness.

What should I do?

- Call a doctor, or get the person to a doctor right away.
- **Tell** your doctor what happened, the date and time it happened, and when the vaccination was given.
- Ask your doctor, nurse, or health department to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form.

Or you can file this report through the VAERS web site at www.vaers.hhs.gov, or by calling 1-800-822-7967.

VAERS does not provide medical advice.

The National Vaccine Injury Compensation Program

A federal program exists to help pay for the care of anyone who has had a rare serious reaction to a vaccine.

For information about the National Vaccine Injury Compensation Program, call 1-800-338-2382 or visit their website at www.hrsa.gov/vaccinecompensation.

8 | How can I learn more?

- Ask your doctor or nurse. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call 1-800-232-4636 (1-800-CDC-INFO)
 - Visit CDC's National Immunization Program website at www.cdc.gov/vaccines
 - Visit CDC's meningococcal disease website at www.cdc.gov/ncidod/dbmd/diseaseinfo/meningococcal_g.htm
 - Visit CDC's Travelers' Health website at wwwn.cdc.gov/travel





WyVIP Special Clinic Order Form

PIN:			Date:					
Res	sponsible Clinician Sig	nature:						
Pri	mary Contact:		Phone:					
Fac	ility Name:		Fax:					
Ma	iling Address:							
V	VyVIP will make every efforwailable brands. Please refe 307-673-8	ort to accommodate your br or to the "Pink Book", manu 1930 for dosing and clinical	and choice; however, if we	_				
	Vaccine	Brand Requested	Doses Requested	WyVIP Only				
	DT							
	DTaP							
	DTaP-Hep B-IPV							
	IPV							
	Hepatitis A Adult							
	Hepatitis A Ped							
	Hep A/B Adult							
	Hepatitis B Adult							
	Hepatitis B Ped							
	Hepatitis B-Hib							
	HIB							
	HPV							
	MCV-4							
	MMR							
	PCV-7							
	Rotavirus							
	Td							
	Tdap							
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Loc	ason for Request:eation of Clinic (If App	olicable):						
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